

# Plant Systematics and Evolution

Volume 158 1987/88

ISSN 0378-2697

Editorial Board: F. Ehrendorfer (Managing Editor), Wien,  
L. Geitler, W. Hagemann, D. L. Hawksworth, V. H. Heywood,  
T. J. Mabry, J. Poelt, G. L. Stebbins, T. F. Stuessy, B. L. Turner



Springer-Verlag Wien New York

# Advisory Board

R. Y. Berg, Oslo  
T. J. Crovello, Notre Dame, Ind.  
M. A. Fischer, Wien  
H. Greger, Wien  
J. Greilhuber, Wien  
J. L. Harper, Bangor  
J. Heslop-Harrison, Aberystwyth  
U. Jensen, Bayreuth  
K. Jones, Kew  
S. Kawano, Kyoto  
T. N. Khoshoo, Lucknow  
G. F. Leedale, Leeds  
H. Merxmüller, München

H. Meusel, Halle a. d. Saale  
M. Moser, Innsbruck  
B. Nordenstam, Stockholm  
R. M. Schuster, Amherst, Mass.  
D. Schweizer, Wien  
R. C. Starr, Austin, Tex.  
A. Takhtajan, Leningrad  
Elisabeth Tschermak-Woess, Wien  
S. Vogel, Mainz  
G. Wagenitz, Göttingen  
A. Weber, Wien  
F. Weberling, Ulm

Editorial Assistant: Irmgard Krisai, Wien

Vol. 158	No. 1	1987	pp. 1–71	Published December 4, 1987
Vol. 158	No. 2–4*	1988	pp. 73–341	Published March 11, 1988

\* Dedicated to Elisabeth Tschermak-Woess on the occasion of her 70th birthday. Edited by J. Poelt and D. Schweizer

The exclusive copyright for all languages and countries, including the right for photomechanical and any other reproductions including microform is transferred to the publisher. For copyright regulations and for further information, see the detailed "Instructions to Authors".

© 1988 by Springer-Verlag/Wien



## Contents

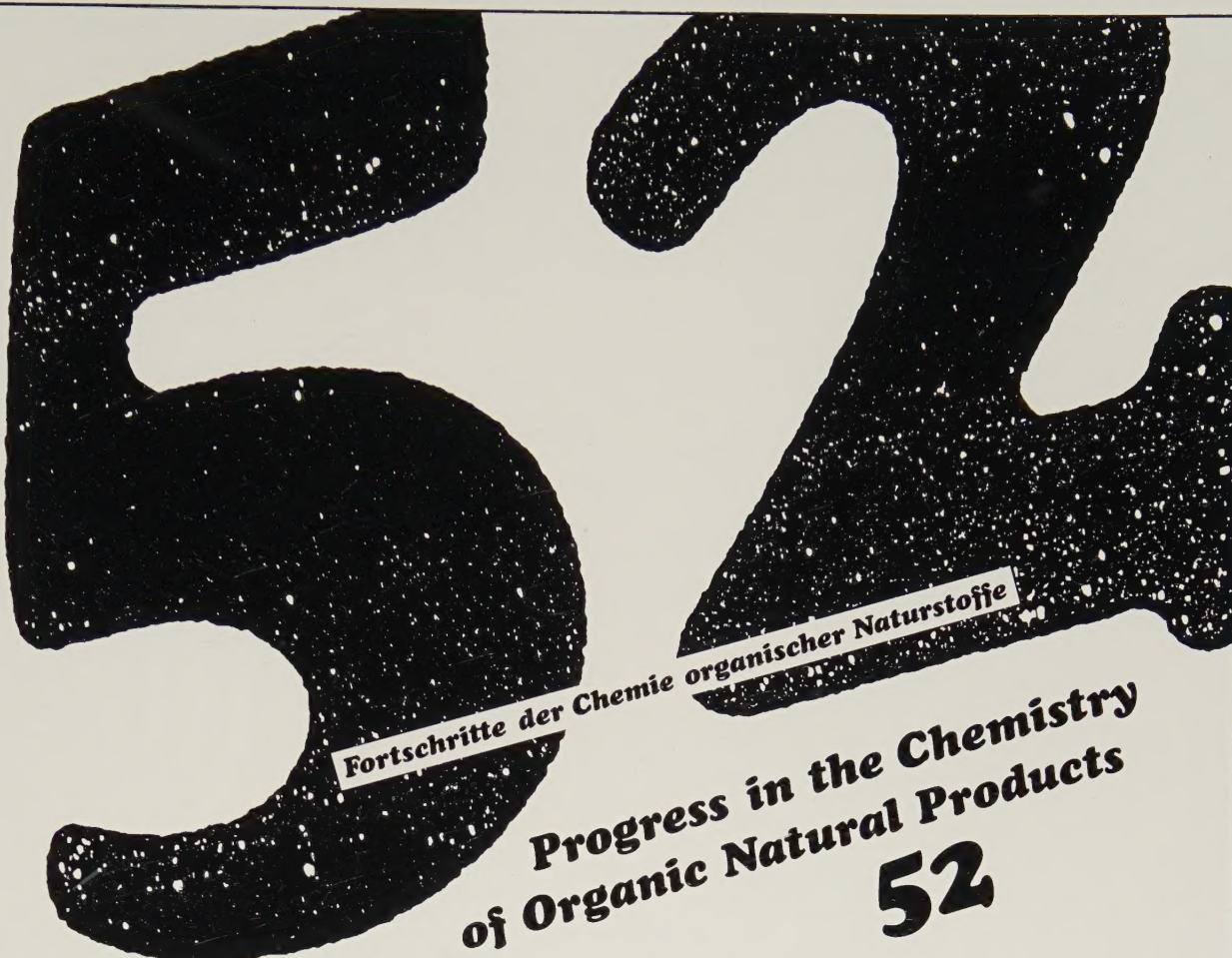
Adam, J. S., s. Barlow, P. W.	
Ahmadjian, V.: The lichen alga <i>Trebouxia</i> : does it occur free-living? . . . . .	243
Barlow, P. W., Adam, J. S.: The position and growth of lateral roots on cultured root axes of tomato, <i>Lycopersicon esculentum</i> (Solanaceae) . . . . .	141
Brody, T., Snow, L.: Structuring of genetic variation in <i>Hordeum spontaneum</i> (Poaceae): genotypic variation within populations . . . . .	1
Büdel, B., Henssen, A.: <i>Trebouxia aggregata</i> and <i>Gloeocapsa sanguinea</i> , Phycobionten in <i>Euopsis granatina</i> (Lichinaceae) . . . . .	235
Burns-Balogh, P., Hesse, M.: Pollen morphology of the cyripedioid orchids	165
Calder, D. M., s. Dafni, A.	
Costanza, S. H., Hymowitz, T.: Adventitious roots in <i>Glycine</i> subg. <i>Glycine</i> : morphological and taxonomic indicators of the B genome . . . . .	37
Crawford, D. J., s. Lowrey, T. K.	
Dafni, A., Calder, D. M.: Pollination by deceit and floral mimicry in <i>Thelymitra antennifera</i> (Orchidaceae) . . . . .	11
Döbbeler, P.: Drei neue moosbewohnende Ascomyceten . . . . .	329
Fiechter, E., Honegger, R.: Seasonal variations in the fine structure of <i>Hypogymnia physodes</i> (lichenized Ascomycetes) and its <i>Trebouxia</i> photobiont . . . . .	249
Gärtner, G., Ingolić, E.: Zur Morphologie und Systematik des <i>Trebouxia</i> -Phycobionten im Thallus von <i>Usnea longissima</i> (Lecanorales) . . . . .	225
Geber, G., Schweizer, D.: Cytochemical heterochromatin differentiation in <i>Sinapis alba</i> (Cruciferae) using a simple air-drying technique for producing chromosome spreads . . . . .	97
Greilhuber, J.: "Self-tanning" — a new and important source of stoichiometric error in cytophotometric determination of nuclear DNA content in plants . . . . .	87
Guerra, M. d. S.: Characterization of different types of condensed chromatin in <i>Costus</i> (Zingiberaceae) . . . . .	107
Hausknecht, A., Krisai, I.: Notes on <i>Psathyrella dunensis</i> (Coprinaceae) . . . . .	63
Henssen, A., s. Büdel, B.	
Hertel, H., Rambold, G.: Cephalodiate Arten der Gattung <i>Lecidea</i> sensu lato (Ascomycetes lichenisati) . . . . .	289
Hesse, M., s. Burns-Balogh, P.	
Honegger, R., s. Fiechter, E.	
Hymowitz, T., s. Costanza, S. H.	
Ingolić, E., s. Gärtner, G.	
Krisai, I., s. Hausknecht, A.	
Le Thomas, A., s. Morawetz, W.	
Loidl, J.: List of publications of E. Tschermak-Woess . . . . .	81
Loidl, J.: SC-formation in some <i>Allium</i> species, and a discussion of the significance of SC-associated structures and of the mechanisms for presynaptic alignment . . . . .	117
Lowrey, T. K., Crawford, D. J.: Electrophoretic confirmation of the intergeneric hybrid $\times$ <i>Ruttyruspolia</i> (Acanthaceae) . . . . .	29

McFadden, G. I., s. Melkonian, M.	
Melkonian, M., Peveling, E.: Zoospore ultrastructure in species of <i>Trebouxia</i> and <i>Pseudotrebouxia</i> (Chlorophyta)	183
Melkonian, M., McFadden, G. I., Reize, I. B., Preisig, H. R.: A light and electron microscopic study of the quadriflagellate green alga <i>Spermatozopsis exsultans</i>	47
Mayrhofer, H., s. Poelt, J.	
Morawetz, W., le Thomas, A.: Karyology and systematics of the genus <i>Ambavia</i> and other <i>Annonaceae</i> from Madagascar	155
Nagl, W., Pfeifer, M.: Karyological stability and microevolution of a cell suspension culture of <i>Brachycome dichromosomatica</i> (Asteraceae)	133
Peveling, E., s. Melkonian, M.	
Pfeifer, M., s. Nagl, W.	
Preisig, H. R., s. Melkonian, M.	
Poelt, J.: Elisabeth Tschermak-Woess und die Flechten	77
Poelt, J., Mayrhofer, H.: Über Cyanotrophie bei Flechten	265
Rambold, G., s. Hertel, H.	
Reize, I. B., s. Melkonian, M.	
Schiman-Czeika, H.: Beobachtungen an <i>Lempholemma</i> -Arten aus dem Ostalpenraum (Lichenes, Lichinaceae)	283
Schmid, A.-M. M.: The special Golgi-ER-mitochondrion unit in the diatom genus <i>Coscinodiscus</i>	211
Schweizer, D., s. Geber, G.	
Schweizer, D.: Elisabeth Tschermak-Woess — on the occasion of her 70th birthday	73
Snow, L., s. Brody, T.	
Stocker-Wörgötter, E., Türk, R.: Licht- und elektronenmikroskopische Untersuchungen von Entwicklungsstadien der Flechte <i>Endocarpon pusillum</i> unter Kulturbedingungen	313
Türk, R., s. Stocker-Wörgötter, E.	
Waha, M.: Different origins of fragile exines within the <i>Annonaceae</i>	23

## Short Communications

Barker, W. R., Kiehn, M., Vitek, E.: Chromosome numbers in Australian <i>Euphrasia</i> (Scrophulariaceae) (Short communication)	161
Calderon-Saenz, E., Schnetter, R.: <i>Cryptochlora perforans</i> , a new genus and species of algae (Chlorarachniophyta), capable of penetrating dead algal filaments (Short communication)	69
Kiehn, M., s. Barker, W. R.	
Schnetter, R., s. Calderon-Saenz, E.	
Vitek, E., s. Barker, W. R.	





*Fortschritte der Chemie organischer Naturstoffe*

**Progress in the Chemistry  
of Organic Natural Products  
52**

**Founded by L. Zechmeister**  
**Editors: W. Herz, H. Grisebach,**  
**G. W. Kirby, Ch. Tamm**

1987. 65 figures. VIII, 224 pages.  
Cloth DM 210, —, öS 1470, —  
Subscription price  
cloth DM 189, —, öS 1323, —  
ISBN 3-211-81989-4

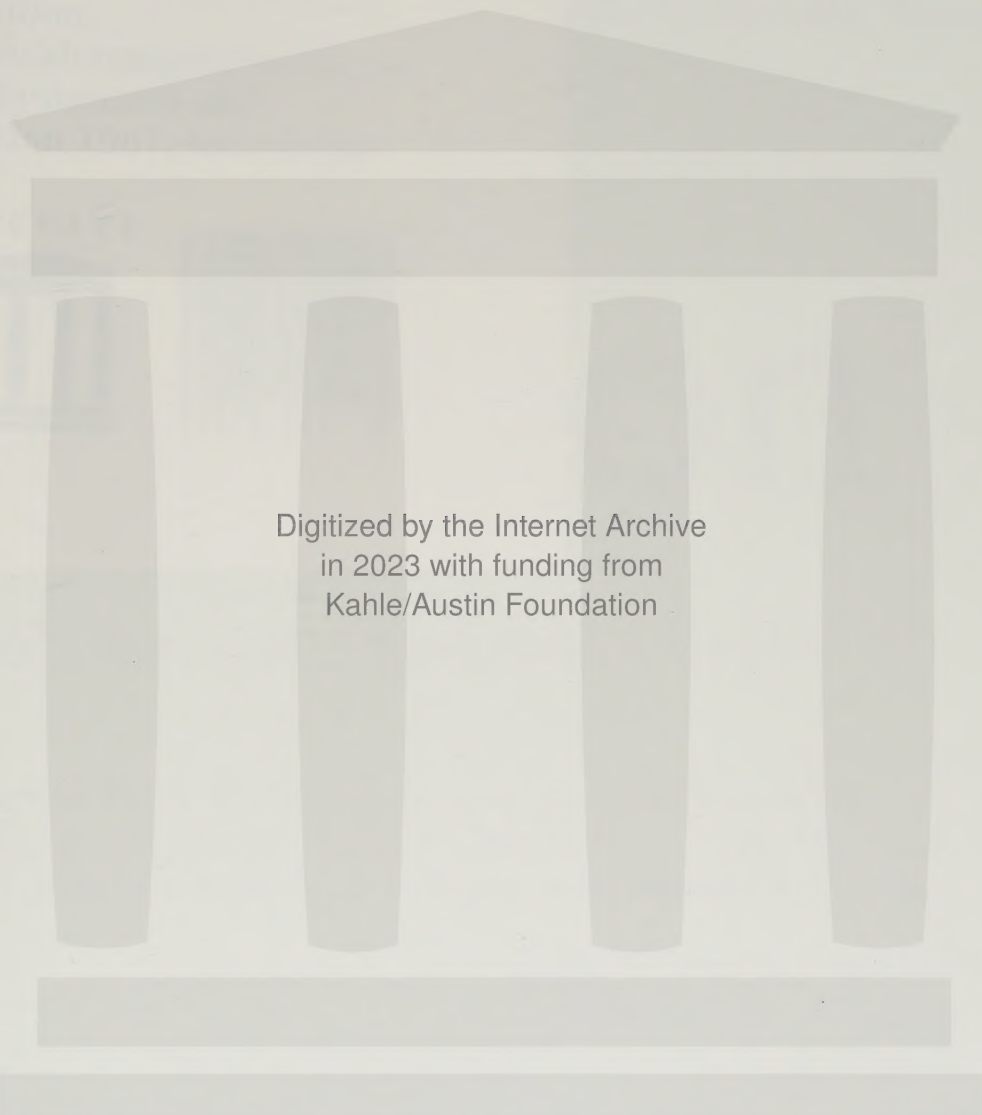
**Contents:** U. Weiss, L. Merlini, and  
G. Nasini: Naturally Occurring Perylene-  
quinones. — H. Achenbach: The Pigments  
of the Flexirubin-Type. A Novel Class of  
Natural Products. — T. Goto: Structure,  
Stability and Color Variation of Natural  
Anthocyanins. — P. Bhattacharyya and D.  
P. Chakraborty: Carbazole Alkaloids. —  
Author Index. — Subject Index.

The volumes of this classic series, now referred to simply as "Zechmeister" after its founder, L. Zechmeister, have appeared under the Springer imprint ever since the series' inauguration in 1938. The volumes contain contributions on various topics related to the origin, distribution, chemistry, synthesis, biochemistry, function or use of various classes of naturally occurring substances ranging from small molecules to biopolymers.

Each contribution is written by a recognized authority in his field and provides a comprehensive and up-to-date review of the topic in question. Addressed to biologists, technologists and chemists alike, the series can be used by the expert as a source of information and literature citations and by the non-expert as a means of orientation in a rapidly developing discipline.

**Springer-Verlag Wien New York**





Digitized by the Internet Archive  
in 2023 with funding from  
Kahle/Austin Foundation



